AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (cancelled)

2. (original): ~~A device as claimed in claim 1~~ An electronic switching device having an active semiconductor region including a semiconductor material of a metal complex,

wherein the metal complex comprises a chain of cations and anions, wherein each anion and cation comprises a metal atom and the ions are bonded such that charge carriers of the metal atoms are delocalized along the chain.

3. (original): A device as claimed in claim 2, wherein the ions are bonded to each other by means of the metal atoms.

4. (previously presented): A device as claimed in claim 2, wherein each ion comprises a metal atom and ligands linked to the metal atom.

5. (original): A device as claimed in claim 4, wherein each ion is substantially planar.

6. (previously presented): A device as claimed in claim 4, wherein at least some of the ligands comprise a solubilizing moiety, preferably n alkyl chain.

7. (original): A device as claimed in claim 6, wherein the alkyl chain is a branched alkyl chain.

8. (original): A device as claimed in claim 7, wherein the alkyl chain is (S)-3,7-dimethyloctyl.

9. (previously presented): A device as claimed in claim 6, wherein at least some of the ligands are of the form NH_2R, where R is an alkyl chain.

10. (original): A device as claimed in claim 9, wherein all of the ligands of the anions are of the form NH_2R.

11. (withdrawn): A device as claimed in claim 4, wherein at least some of the ligands consist of halide atoms.

12. (withdrawn): A device as claimed in claim 11, wherein the halide atoms are Cl.

13. (withdrawn): A device as claimed in claim 11, wherein all of the ligands of the cations consist of halide atoms.

14. (previously presented): A device as claimed in claim 2, wherein all the anions are the same as each other and all the cations are the same as each other.

15. (previously presented): A device as claimed in claim 2, wherein the length of the chain is in the range from 10 to 10,000 ions.

16. (previously presented): A device as claimed in claim 2, wherein each of the said metal atoms is independently on of Pt, Pd, Au, Ag, Ni, Cu.

17. (original): A device as claimed in claim 16, wherein all the said metal atoms are Pt.

18. (previously presented): A device as claimed in claim 2, wherein at least some of the ligands comprise an optically active moiety.

19. (original): A device as claimed in claim 18, wherein the optically active functional moiety is a fluorescent moiety or a phosphorescent moiety.

20. (previously presented): A device as claimed in claim 2, wherein at least some of the ligands comprise an electron donor moiety and at least some of the other ligands comprise an electron acceptor moiety and the said moieties are arranged to interact to form donor-acceptor complexes.

21. (original): A device as claimed in claim 20, wherein the electron donor moieties are comprised by ligands of either the anions or cations and the electron acceptor moieties are comprised by the other of the anions and cations.

22. (previously presented): A device as claimed in claim 2, wherein at least some of the ligands comprise a charge transporting moiety.

23. (currently amended): A device as claimed in claim ~~1~~ 2, wherein the said material is soluble.

24. and 25 (canceled).

26. (currently amended): A device as claimed in claim ~~1~~ 2, wherein the device is a transistor.

27. (currently amended): A device as claimed in claim ~~1~~ 2, wherein the device is a field effect transistor.

28. – 31. (canceled).

32. (previously presented): A method of forming an active semiconductor region of an electronic switching device, the method comprising processing a metal complex from solution to form the said region, wherein said metal complex comprises a chain of cations and anions, wherein each anion and cation comprises a metal atom and the ions are bonded such that charge carriers of the metal atoms are delocalized along the chain.

33. (withdrawn): A method of producing a semiconductor device, the method including depositing a semiconductor material on a substrate to form a semiconductor region, and contacting the semiconductor device with a solvent in situ on the substrate and thereby remove impurities from the semiconductor material.

34. (withdrawn): A method as claimed in claim 33, wherein the semiconductor material is soluble.

35. (withdrawn): A method as claimed in claim 34. wherein the semiconductor material is insoluble in the solvent.

36. (withdrawn): A method as claimed in claim 33, wherein the solvent is water.

37. (withdrawn): A method as claimed in claim 33, wherein the material comprises a metal complex.

38. (withdrawn): A method as claimed in claim 37, wherein the material comprises a chain of cations and anions, wherein *each* anion and cation comprises a metal atom and the ions are bonded such that charge carriers of the metal atoms are delocalised along the chain.

39. (canceled).

40. (withdrawn): A method as claimed in claim 33, wherein the semiconductor material forms the active semiconductor region of the semiconductor device.

41. (withdrawn): A method as claimed in claim 33, comprising removing the device from the solvent and completing the formation of the semiconductor device.